



CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

June 1, 2007

H.R. 364

A bill to provide for the establishment of the Advanced Research Projects Agency-Energy

*As ordered reported by the House Committee on Science and Technology
on May 23, 2007*

SUMMARY

H.R. 364 would authorize the appropriation of \$4.9 billion over the 2008-2012 period for the Department of Energy (DOE) to establish the Advanced Research Projects Agency-Energy (ARPA-E). ARPA-E would award competitive grants, cooperative agreements, and contracts for the research and development of projects with potential energy and environmental applications. CBO estimates that implementing H.R. 364 would cost \$4.1 billion over the 2008-2012 period, assuming the appropriation of the specified amounts. Enacting H.R. 364 would have no effect on direct spending or revenues.

H.R. 364 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA). The bill would benefit public institutions of higher education and any costs they may incur would result from complying with conditions of federal assistance.

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary impact of H.R. 364 is shown in the following table. The costs of this legislation fall within budget function 250 (general science, space, and technology).

	By Fiscal Year, in Millions of Dollars				
	2008	2009	2010	2011	2012
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Authorization Level	300	1,000	1,100	1,200	1,300
Estimated Outlays	165	640	950	1,140	1,240

BASIS OF ESTIMATE

For this estimate, CBO assumes that the bill will be enacted in fiscal year 2007 and that the amounts authorized by the bill will be appropriated for each fiscal year. H.R. 364 would authorize the appropriation of \$4.9 billion over the next five years to establish ARPA-E within DOE.

The mission of the new agency would be to reduce energy imports and greenhouse gas emissions, improve energy efficiency, and develop and deploy energy technologies. To meet these goals, ARPA-E would award competitive grants, cooperative agreements, and contracts to institutions of higher education, research foundations, private companies, and collaborations of trade and industry. Such awards would be used to identify and promote significant advances in basic sciences that have potential energy and environmental applications, translate these discoveries into workable technologies, and accelerate their market adoption.

Based on the historical spending patterns of similar programs (notably the DOE Office and Science and the Defense Advanced Research Projects Agency), CBO estimates that implementing H.R. 364 would cost \$165 million in 2008 and \$4.1 billion over the 2008-2012 period, assuming appropriations at the levels specified in the bill.

INTERGOVERNMENTAL AND PRIVATE-SECTOR IMPACT

H.R. 364 contains no intergovernmental or private-sector mandates as defined in UMRA. Funding authorized by the bill may benefit public institutions of higher education that compete for funds in connection with the research goals of ARPA-E. Any costs that they might incur would result from complying with conditions of federal assistance.

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